

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-11 (Cancelled)

Claim 12 (New): An isolated nucleic acid sequence encoding a polypeptide having acetohydroxy acid synthetase (AHAS) activity comprising:

(a) SEQ ID NO: 1 or SEQ ID NO: 3,

(b) a polynucleotide sequence that hybridizes to the complement of SEQ ID NO: 1 or 3 under stringent conditions, where stringent conditions comprise hybridization in 1 x SSC and 0.1% SDS at 68°C; or

(c) a polynucleotide sequence that is at least 70% homologous to SEQ ID NO: 1 or 3; wherein said polynucleotide sequence does not encode a protein comprising the sequence Gly Ile Ile at the positions corresponding to residues 20-22 of SEQ ID NO: 2.

Claim 13 (New): The isolated nucleic acid sequence of claim 12, which comprises (a) SEQ ID NO: 1 or SEQ ID NO: 3.

Claim 14 (New): The isolated nucleic acid sequence of claim 12, which comprises (b) a polynucleotide sequence that hybridizes to the complement of SEQ ID NO: 1 or 3 under stringent conditions, where stringent conditions comprise hybridization in 1 x SSC and 0.1% SDS at 68°C.

Claim 15 (New): The isolated nucleic acid sequence of claim 12, which comprises (b) a polynucleotide sequence that hybridizes to the complement of SEQ ID NO: 1 or 3 under stringent conditions, where stringent conditions comprise hybridization in 0.2 x SSC and 0.1% SDS at 68°C.

Claim 16 (New): The isolated nucleic acid sequence of claim 12, which comprises (c) a polynucleotide sequence that is at least 70% homologous to SEQ ID NO: 1 or 3.

Claim 17 (New): The isolated nucleic acid sequence of claim 12, which is at least 95% homologous to SEQ ID NO: 1 or 3.

Claim 18 (New): The isolated nucleic acid sequence of claim 12, which encodes a polypeptide that is at least 84% homologous with the amino acid sequence of SEQ ID NO: 2 or 4.

Claim 19 (New): The isolated nucleic acid sequence of claim 12, which contains a codon encoding Asp and Phe, respectively, in the position corresponding to amino acids 21 and 22 in SEQ ID NO: 2 or 4.

Claim 20 (New): A vector comprising the isolated polynucleotide sequence of claim 12.

Claim 21 (New): The vector of claim 20 that is Vector pECKA or pECKA/ilvBNC.

Claim 22 (New): A host cell comprising the vector of claim 20.

Claim 23 (New): The host cell of claim 22 that is *Escherichia coli*.

Claim 24 (New): The host cell of claim 22 that is *Bacillus subtilis*.

Claim 25 (New): The host cell of claim 22 that is *Corynebacterium* or *Brevibacterium*.

Claim 26 (New): The host cell of claim 22, which is a yeast.

Claim 27 (New): The host cell of claim 22 that is a mammalian or insect cell.

Claim 28 (New): The host cell of claim 22 that has been deposited under accession number DSM15652, DSM15651, or DSM15650.

Claim 29 (New): A method for making a polypeptide having acetohydroxy acid synthetase (AHAS) activity comprising culturing or growing the host cell of claim 22 in a medium suitable for expression of said polynucleotide and recovering a polypeptide having acetohydroxy acid synthetase (AHAS) activity.

Claim 30 (New): The method of claim 29, further comprising preparing an enantiomer-enriched branched-chain amino acid using said recovered polypeptide.

Claim 31 (New): The method of claim 29, wherein said enatiomer-enriched branched chain amino acid is valine, leucine, or isoleucine.